

## Key Features

Two Independent Variable Gain Stages

State-of-the-Art Control Electronics with Fast Transient Suppression Control

Mid-Stage Access

Integrated Optical Supervisory Channel Add/Drop

Ultra Compact Package Size (100 x 130 x 15 mm)

Provides Flat Gain Across a Wide Gain Range of 15dB, ensuring Compatibility with Systems with Differing Link Losses

Telcordia Qualified

ROHS Compliant

## Applications

Test and Measurements

Booster Amplifier for PM Transmitters

Sensor & LIDAR

## For more info

Please contact us at:

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## Variable Gain Amplifier

The Manlight Variable Gain Amplifier is the next-generation controlled amplifier with two independent variable gain stages that enables significant cost and space saving. With state-of-the-art transient suppression control and best in class optical performance the Manlight variable gain amplifier is well suited for agile networks with reconfigurable optical add/drop nodes (ROADM) and varying link budgets. Designed for use in the long haul and Metro DWDM optical networking systems, where the ability to respond to changing conditions is a key requirement.



## Variable Gain Amplifier



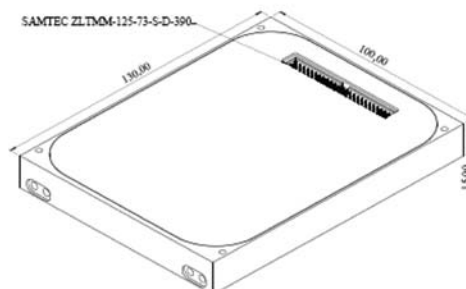
### SPECIFICATIONS\* OPTICAL CHARACTERISTICS

Parameters	VGA Mid-Stage Access	VGA 2 Separate Stages	Comments	Unit
Wavelength Range	1529 - 1565	1529 - 1565		nm
Maximum Output Power	20	22		dBm
Input Power Range	-32 to +12	-40 to +12	Dynamic Range: 40 dB	dBm
Gain Range	3 - 33	5 - 35	Dynamic Range: 15 dB	dB
Mid-Stage Loss Range	0 - 15	N/A		dB
Gain Flatness (typ) @ Nominal Gain	0.7	0.7	Peak to Peak	dB
Gain Flatness (max) @ Nominal Gain	1.0	1.0	Peak to Peak	dB
Noise Figure (typ) @ Max Gain & Power	5.0	5.0		dB
Noise Figure (max) @ Max Gain & Power	5.5	5.5		dB
Polarization Mode Dispersion	0.3	0.3		ps
Polarization Dependent Gain	0.5	0.5		dB
Optical Supervisory Channel	1500 - 1520 1500 - 1520	1610 - 1630 1610 - 1630	Optional	nm

### ELECTRICAL & ENVIRONMENTAL CHARACTERISTICS

Transient Settling Time (15dB Add/Drop) (typ/max)	150 / 400	µs
Transient Overshoot/Undershoot (15dB Add/Drop) (typ/max)	0.5 / 1.0	dB
Power Consumption (typical / max, EOL worst case)	10 / 20	W
Power Supply Voltage	+5.0	VDC
Operating Case Temperature	0 to +70	°C
Storage Temperature	-40 to +85	°C
Operating Humidity (non-condensing)	5 - 95	% RH

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Please note: information in this document is typical and must be specifically confirmed in writing by your supplier before it becomes applicable to any order or contract. Information is subject to change without notice.  
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### ORDERING INFO

Please contact your Sales Manager. 3SPGroup can also develop custom products to meet a wide range of technical requirements.



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